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ABSTRACT

Designed to be utilized in a national workshop conducted to aid teacher educators in preparing vocational education teachers to install and manage competency-based instruction, this training module follows the format and structure employed in the performance-based teacher education (PBTE) curricula materials developed by the Center for Vocational Education (Columbus, Ohio). Both this competency-based training module and the Center's PBTE curricula materials include the following major components: cognitive learning activities, practice activities, feedback, and assessment activities. The terminal objective for this training module, and for the national workshop itself, is to train educators to install competency-based instruction (CBI). Likewise, the enabling objectives of this module correspond to the national workshop training objectives and include the following: demonstrate knowledge of the principles which should underlie any CBI program; demonstrate knowledge of how to orient students to CBI; demonstrate knowledge of the activities involved in managing a CBI program; demonstrate knowledge of how to use PBTE materials to train teachers to use CBI; and plan how to implement the CBI training program and to orient the persons involved. A detailed report of the national workshop (CE 013 792) and related PBTE training activities and materials (CE 013 794-795; CE 014 260; and CE 014 160-161) are also available in the ERIC system. (BM)

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TRAIN EDUCATORS TO INSTALL COMPETENCY-BASED VOCATIONAL INSTRUCTION

MODULE CBI-101

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- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

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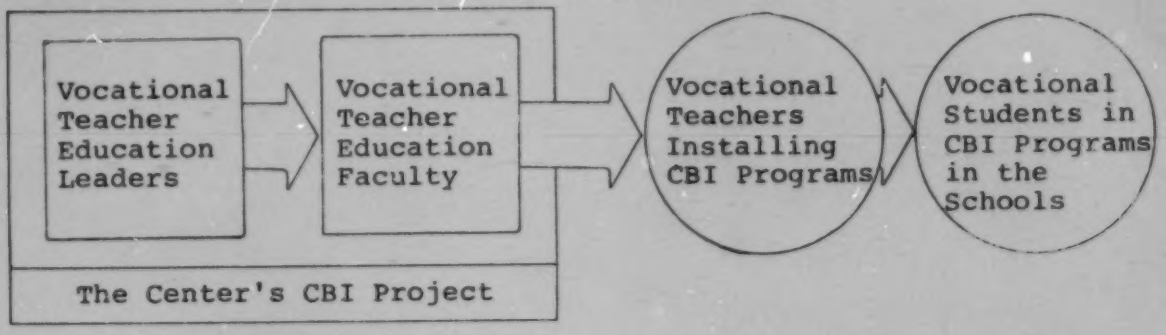
INTRODUCTION

Competency-based instruction is being vigorously promoted throughout the field of vocational education as one of the most promising developments for making vocational education more accountable and more effective. Many vocational training institutions are just now becoming aware of the idea, others are in various stages of program planning, and some are fully implementing the principles of competency-based instruction (CBI).

If the CBI approach and the supporting instructional materials now being developed in vocational education are to achieve their full effect, vocational teachers must be capable of installing and conducting competency-based programs. They need to learn new management techniques, and must be prepared to function in the roles of learning diagnostician, manager, and resource person rather than as lecturers and test administrators. In order to prepare vocational teachers to install and conduct CBI, teacher educators themselves must be knowledgeable and expert in the theory and practice of this approach. Teacher educators can perhaps most effectively train teachers for CBI by utilizing individualized competency-based instructional materials as a basis for learning experiences. It is the responsibility of leaders in vocational teacher education programs to ensure that their programs are organized to incorporate the subject matter content of competency-based vocational instruction and to deliver the training to preservice and inservice teachers.

The training program of which this module is a part is directed first at selected leaders in vocational teacher education, and then at teacher education faculty in the participating institutions. These individuals will, in turn, organize their teacher education courses and programs so as to be able to train vocational teachers to install competency-based instruction in vocational programs in secondary and post-secondary schools. The diagram below shows this in graphic form.


Vocational Teacher Education Leaders
Vocational Teacher Education Faculty
Vocational Teachers Installing CBI Programs
Vocational Students in CBI Programs in the Schools
The Center's CBI Project

As used throughout this module, "competency-based instruction" is an instructional approach that is based on the competencies (technical skills) identified and verified as being needed to perform the duties of a specified occupation. Specifically, CBI is an approach in which the competencies to be acquired and demonstrated by vocational students, and the criteria to be applied in assessing student performance, are made explicit, and the student is held accountable for meeting these criteria. The terms "performance-based" and "competency-based are essentially synonymous, but the former is limited in this module to performance-based teacher education (PBTE). It is, of course, logical that the PBTE approach be used to prepare vocational teachers for installing CBI in the schools.

We have chosen the modularized approach to achieving the objectives of this workshop because we want to "practice what we preach." We are asking you to use modularized materials with your students when you return to your institution. Therefore, this module and the various learning experiences and activities within it have been designed to use the same processes to help you learn what you need to know. Thus the medium becomes part of the message.

In order to clarify and dramatize the problems and procedures involved in competency-based instruction, you will be asked to assume several roles in the course of the workshop. First, you will function in the role of a student in a CBI program to help you gain some personal experience in perceiving the differences between CBI and conventional instruction. Next, you will take the view of a vocational teacher in a school that is installing CBI. Later, in the role of a vocational teacher educator and leader, you will begin planning for your task of assisting teachers to prepare for CBI. We hope that through this progression of experiences each participant will gain a deeper understanding of CBI and will be able to take a leadership role in preparing teachers to utilize its full potential for improving vocational education.

ABOUT THIS MODULE

Objectives This module includes six objectives:

Terminal Objective: Within your own institution, train educators to install competency-based instruction. Your performance will be assessed by you, using the Teacher Performance Assessment Form, pp. 65-66 *(Learning Experience VI)*.

Enabling Objectives:

1. Given an experience in role-playing a *student* in a CBI program, demonstrate knowledge of the principles which should underlie any competency-based instructional program *(Learning Experience I)*.

2. Assuming the role of a *teacher* in a CBI program, demonstrate knowledge of how to orient students to CBI *(Learning Experience II)*.

3. Assuming the role of a *teacher* in a CBI program, demonstrate knowledge of the activities involved in managing a CBI program *(Learning Experience III)*.

4. In the role of a *teacher educator*, demonstrate knowledge of how to use PBTE materials to train teachers to use CBI *(Learning Experience IV)*.

5. In your own role as a *leader in this training effort*, plan how you will implement the CBI training program and orient the persons involved *(Learning Experience V)*.

Resources A list of the outside resources which supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions, or in assessing your progress at any time.

Learning Experience I

Required

A teacher skilled in using CBI to assist you in acquiring a skill using CBI techniques and materials, and to evaluate your performance in demonstrating that skill.

A resource person to provide model answers for your completed worksheets.

Optional

Resources (media, references, microfiche) concerning the principles underlying CBI to review.

Learning Experience II

Required

A resource person to present information concerning how to orient students to CBI.

A group of peers with whom you can discuss and critique the performance of a teacher in a given case study.

A peer with whom you can role-play a situation in which a teacher is helping a student plan his/her CBI program, and who can evaluate your performance in role-playing the teacher.

Learning Experience III

Required

A resource person to present information concerning the role of the teacher in managing a CBI program.

Sample CBI materials to review and evaluate.

A program coordinator to present information about his school's CBI program and the role of their teachers in CBI curriculum development.

Optional

Sample teacher-produced CBI media to view.

Learning Experience IV

Required

A resource person to present information concerning PBTE, its application to training teachers to use CBI, and the role of the teacher educator in training teachers using these materials.

A resource person to "walk you through" a module.

The module, "Orient the School and Community to Competency-Based Instruction," Module K-1, Columbus, Ohio: The Center for Vocational Education, The Ohio State University, January 1977.

A post-secondary staff development coordinator to explain the characteristics and organization of the performance-based professional development program at his institution.

The module, "Organize the Vocational Program to Install Competency-Based Instruction," Module K-2, Columbus, Ohio: The Center for Vocational Education, The Ohio State University, January 1977.

A group of peers and a resource person with whom you can discuss your description of the nature and use of a sample module.

Optional

Sample modules from The Center's 100 PBTE modules to review.

Learning Experience V

Required

A resource person to present information on methods of infusing the use of PBTE modules into a traditional teacher education program, and your role in this process.

Two teacher educators experienced in implementing The Center's PBTE modules to present information on their experiences.

A resource person to present information on orientation materials and strategies.

The module, "Train Educators to Install Competency-Based Vocational Instruction," Module CBI-102, Columbus, Ohio: The Center for Vocational Education, The Ohio State University, January 1977.

One or more peers from your site with whom you can plan how you will implement the training program and orient the persons involved.

A resource person to evaluate your competency in planning.

Learning Experience VI

Required

An actual teacher education institution in which you can train educators to install competency-based vocational instruction.

Terminology

Optional Activity or Optional Feedback...refers to an item which is not required, but which is designed to supplement and enrich the required items in a learning experience.

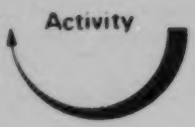
Peers...refers to fellow workshop participants who are used to (1) role-play students, etc., and (2) participate in seminar-type discussions and planning sessions. Workshop participants will be divided into small groups for most activities. For site planning activities, participants will divide into groups by states.

Resource Person...refers to The Center's project staff members. Each group will be assigned a Center staff member as a resource person, but all The Center's project staff will be available throughout the workshop as resource persons.

Learning Experience I

OVERVIEW

Given an experience in role-playing a *student* in a CBI program, demonstrate knowledge of the principles which should underlie any competency-based instructional program.



You will be assuming the role of a student in a CBI program and, in that simulated situation, learning an entry-level skill through competency-based techniques and materials.

You will be demonstrating competency in the skill you have learned.

Your performance in demonstrating the skill will be evaluated by your teacher, using a criterion-referenced measure.

When you have achieved competency in the assigned skill, you may complete any one or more of the following activities: serving as an assessor of other students' performance; achieving another skill yourself; and/or reviewing available media and materials concerning CBI.

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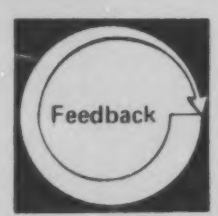
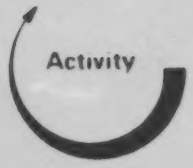
You will be demonstrating knowlege of CBI principles by reviewing the CBI Principles Worksheet, pp. 12-14, and working with a small group to answer the questions on the worksheet.



You will be attending a large-group session, and evaluating your competency in answering the worksheet questions by comparing your completed worksheets with the Model Answers provided by overhead transparency. A question-and-answer session will follow.

Assume that you are a student in a CBI program. Report to your assigned CBI teacher and, using CBI methods and materials, achieve competency in an entry-level skill.



Once you feel you have mastered the skill, demonstrate your competency in that skill.

Your competency in performing the skill will be evaluated by your teacher, using a criterion-referenced measure. In some cases, your teacher may have a peer, who has already demonstrated competency in that skill, evaluate your competency. The level of performance required will be specified by your teacher.

If you finish the above activities before it is time to move on to the next activity, you may wish to complete one or more of the following options:

- If you received excellent ratings on your performance of the assigned skill, your teacher may want you to evaluate the performances of one or more of your peers in demonstrating that skill.
- You may wish to report to another CBI teacher and achieve competency in another entry-level skill.
- You may wish to review the media and material available in the conference room concerning the principles underlying CBI.

Meet with your assigned small group. On an individual basis, briefly review the items on the CBI Principles Worksheet below. Then, as a group, discuss each item on the worksheet. Make notes on the worksheet concerning the responses to each item, and attempt to derive one or more CBI principles for each item based on those responses.

CBI PRINCIPLES WORKSHEET

1. How much time was allowed for the activity? How much time did it take you? What happened to people who finished early? Who determined how fast you should work?

2. Who was primarily responsible for your learning?

3. Who determined when you should be evaluated? How did you know you were ready?

4. How was your learning evaluated? What activities did you have to complete for evaluation purposes? What measures were used to evaluate you? How were those measures developed? How aware of those measures were you before you were evaluated? How objective were those measures?

5. When you started the activity, did you know what you were supposed to do? How?

6. What role(s) did your teacher play in this activity?

7. Did you have to do all the same things at the same time as your peers? How was what you had to do determined?

8. What types of materials did you use?

Attend a large-group presentation during which a workshop resource person will provide Model Answers to your worksheet items using an overhead transparency. Time for questions and answers will be provided. You will be evaluating your competency in completing the worksheets by comparing your completed worksheets with the Model Answers.

LEVEL OF PERFORMANCE: Your completed CBI Principles Worksheet should have covered the same major points as the model responses. If you missed some points or have questions about additional points you made, raise a question during the large-group presentation.

Learning Experience II

OVERVIEW

Assuming the role of a *teacher* in a CBI program, demonstrate knowledge of how to orient students to CBI.

You will be listening to a large-group presentation concerning how to adequately orient students to CBI.

You may wish to read the information sheet, Orienting Students to CBI, pp. 17-22.

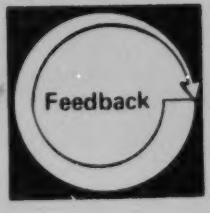
You will be reading the Case Study, p. 23.

You will be participating in a small-group discussion to critique the competency of the teacher described in the Case Study in orienting his students to CBI.

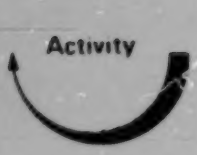
continued

You will be evaluating your competency in critiquing the teacher's performance in orienting students to CBI by comparing your discussion responses to the Model Critique, pp. 25-26.

You will be working with one other workshop participant in a role-play situation in which you will (1) play the role of a teacher helping a "student" plan his/her program, and (2) play the role of a student being helped to plan a program.

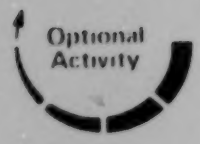


Your competency in helping the "student" plan his/her program will be evaluated by the student, using the Program Planning Checklist, p. 29.



Attend a large-group presentation concerning the role and responsibilities of a classroom teacher in orienting students to CBI. This presentation will include --

- explaining the principles of CBI to students
- explaining to students how their role in a CBI program is different and how competencies are derived
- convincing students of the potential value of CBI to their needs
- helping students plan a program based on specified competencies



For a summary of the material covered in the above presentation, you may wish to read the following information sheet. Remember, the information in this sheet is directed toward an audience composed of practicing vocational teachers.

ORIENTING STUDENTS TO CBI

Orienting Students to General Concepts of CBI

Many, if not most, human beings are wary of the new, the strange, the untried. Consider how you would feel if you were dining at a stranger's home and the food you were served was unknown and unrecognizable. Further, your host looks smug and refuses to tell you what the dish contains. How eager would you be to take a taste?

CBI will very likely be new and strange to your students. If you, as a vocational teacher, want your CBI program to get off to a good start, you need to familiarize your students with this new concept: point out where it is similar to what they know and have done in the past; explain how it is different; and indicate

the value of these differences in terms of the students' own needs, interests, and abilities.

How well you accomplish this orientation function will have a great effect on how smoothly and successfully your program begins. It must be carefully planned out in advance. It is not enough to simply tell your students that CBI --

- is based on competencies which represent actual skills needed on the job
- is self-paced
- is not based on fixed time but on student achievement
- is based on individual needs
- utilizes individualized learning packages supported by media
- uses criterion-referenced student assessment

These abstract concepts may mean little or nothing to a student. Nor is it sufficient simply to define and explain these concepts. You must determine the needs, interests, and abilities of your own students, and plan an orientation session which relates CBI to those specific characteristics. You need to provide students with information concerning how <u>their</u> occupational goals and individual abilities can be better served through CBI. You need to relate CBI to <u>their</u> interests so they will be motivated to undertake it enthusiastically.

There is more involved, however, than simply acclimating them to the concepts and selling them on the idea. Many students in your class probably never have experienced a highly individualized program in which the responsibility for learning is primarily on their own individual shoulders. In most of their

previous classroom contacts, they probably learned as part of a group. Class content was based on group needs and was presented at a pace generally appropriate for the group as a whole. The teacher determined when and how evaluation would take place and the tests (usually paper-and-pencil types) were seen for the first time when they were taken.

Therefore, many students need time to adjust to taking more responsibility for their own progress. They need practice in self-evaluating and learning to know when they are ready to be formally assessed. They need help in overcoming the idea that it is common for students to fail, and in beginning to think of assessment as a learning procedure designed to identify weaknesses so that ultimately one can succeed. They need assistance in learning that it is ultimate success that is important, not necessarily the time it takes. Finally, they need to be made aware of the fact that their individual differences are assets which allow each student to be sometimes a tutor and sometimes a learner.

If your orientation plans include activities which give students these needed concepts and attitudes, then your CBI program will have a better chance of succeeding.

Orienting Students to Your CBI Program Characteristics

Your own particular CBI program will have certain unique features to which students will need to be oriented, especially if you are working within a traditional course structure. If students are still working within a semester system, they will need to understand how self-pacing and non-time-based principles will be reconciled with the fact that they will receive a grade at the

semester's end. They will need to understand how their progress will be monitored and recorded. They will need to be provided with information concerning any special scheduling arrangements you have planned. If a variety of media and resources will be required, students need to know how they can gain access to these materials, what guidelines they are expected to follow in using and returning these materials, and what (if any) recordkeeping systems they need to use in checking out these materials. Likewise, the use of media requires the use of equipment. Students will need to know where the equipment is located, where and how the equipment should be used, who should operate the equipment and, if students are to operate the equipment, how to operate the equipment effectively.

Furthermore, it is critical that students be oriented to the CBI instructional materials or modules which they will be expected to use. This orientation should include explanations of how the module is structured, what parts it contains, the purpose of these parts, what procedures they should follow in beginning and completing a module, what resources outside the module are required, and how to identify and locate these resources. There are a number of ways to orient students to these materials. One way is to walk through the module with an individual or group, explaining each part as you go. Another method is to have all students complete a sample module (perhaps even a simple specially-prepared orientation module) as a group. This violates the self-pacing concept, but it is a good orientation technique. With a little thought, you can probably come up with additional methods for orienting your own students to your particular materials.

Assisting Students in Setting Up Their Individual CBI Programs

Before you can set up individual programs with students, you must have identified the total competencies needed by your students to enter their chosen occupations. In order to ensure that your CBI program is based on the competencies actually required of workers in the occupations for which you are training your students, you must systematically identify and continuously update lists of these competencies. For the most part, task analyses covering most occupations already exist, in which case you could use those as a basis after verifying that the analyses are accurate, up to date, and appropriate to local conditions. These previously constructed analyses are available from the following sources:

- The Center for Vocational Education, The Ohio State University--The Center has constructed some task inventories that are available through the ERIC system. In addition, The Center has published two volumes entitled Directory of Task Inventories containing materials compiled from a review of documents from a wide variety of sources.
- The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University--This lab has released analyses for 76 occupations, with others in process.
- The Vocational-Technical Education Consortium of States (V-TECS)--This is a consortium of 16 states and two branches of the armed forces which have joined together to conduct occupational (task) analyses for several occupational areas. Task statements are compiled and used to develop catalogs of performance objectives and criterion-referenced evaluation measures which, at the present time, are shared only within states which are consortium members.
- Other sources--Many state departments of education, post-secondary schools, and technical institutes have developed task analyses which they are willing to share with other educators.

If you cannot locate an existing task analysis for the occupation for which you are training students, you will need to develop your own. This is a major task, but briefly, it involves (1) preparing a tentative list of competencies by drawing on your own occupational experience, searching the literature, talking to workers to determine what they actually do, checking courses of study or curriculum guides, etc., (2) verifying the tentative list by checking with occupational supervisors or members of your program advisory committee, (3) refining the list and writing tasks in terms of worker performance and performance standards, and (4) reviewing and revising the list on a regular basis (e.g., every two years).

Once prepared, these lists can be used with students to plan their individual programs by completing the following steps:

- Be completely familiar with the competency catalog.
- Have available sub-lists which indicate the sets of competencies identified as being required for various sub-occupations.
- Confer with each student individually re: his/her occupational interests, plans for the future, personal constraints (e.g., need to earn a living quickly), understanding of the expectations of the occupation.
- Review student's occupational history--types of jobs, success, time spent--for possible implications for having acquired occupational competencies in out-of-school experience.
- Question student about specific competencies of the chosen occupation about which there is some indication of already acquired proficiency. Ask him/her to describe operation or task...probe to determine likely proficiency.
- Prepare list with student of all competencies he/she yet needs to accomplish for entry into occupation.

The following Case Study describes the way a vocational teacher oriented his students to their CBI programs. Keeping in mind the elements of a well-constructed orientation, read the situation described.

CASE STUDY

The principles underlying CBI were not all that new to Mr. Clement. He had long believed that students should take more responsibility for their own learning and had been running his classes according to that belief for years. This new CBI thing would give him even more justification for insisting on self-initiated study on the part of his students.

Mr. Clement carefully planned how he would structure his CBI program, being attentive to meeting all the CBI principles to a high degree. He devised systems for keeping records, assessing student progress, deriving grades, and handling resources and equipment. He then prepared a detailed handout explaining CBI, the nature of the CBI modules they would use, and each aspect of his CBI program, and describing what would be expected of students in this program. When his students arrived in class on the first day, he introduced himself, took care of all the paperwork required for that first day, and then explained the general objectives of his course.

In the few minutes remaining, he passed out the handout he had prepared, a list of the required competencies for his course, and a sample criterion-referenced checklist. He indicated that their homework assignment was to study these handouts thoroughly and carefully so they would all be prepared to start working on the first competency on the following day. He ended the class by reminding them that the responsibility for learning was going to be on their shoulders in this class, that they would work individually, and that he would serve only as a resource person and evaluator. "But," he said, "it will be a very worthwhile experience because when you demonstrate that you can meet every criterion on every competency checklist, you will know for sure that you are well-prepared to enter your future career."

Meet with your small group and critique the case study: what errors did the teacher make?...what areas of the orientation could have been strengthened and how?...what were the strengths of the orientation?...what might be the students' reaction to this orientation? Note in the space provided below and on the following page the points agreed upon by the group concerning the adequacy of the teacher's performance.

Compare your completed critique of the Case Study with the Model Critique given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL CRITIQUE

Basically, with Mr. Clement's receptive attitude toward CBI and his obvious interest in planning a well-structured program which would deliver on the principles of CBI, it is a shame that he did not spend more of his massive efforts in planning a more thorough orientation program.

First of all, no matter how clear and detailed the handout may be, this is a less than desirable way to initiate students to CBI. It has all the charm of being hit in the face with a bucket of ice water. The students barely know him or the course, and yet he is turning them over immediately to a piece of paper and their own devices. When PBTE and CBI programs are perceived by students as being impersonal, the programs tend to fail. He is providing for their cognitive needs only, and that only if they are skilled readers. He has totally ignored the effect this strange new program will have on their attitudes.

Secondly, although he has provided printed explanations of the methods and materials structuring the course, this does not communicate in the way hands-on activities do. And, students would be more likely to feel comfortable with the new program if they had a teacher-directed practice experience first. Reading about the nature of modular materials is not the same as seeing actual modules, listening to an explanation of the parts of a module you have in your hands, or trying to complete a module for practice with the teacher's help. Reading about a multitude of new systems is not the same as trying to use those systems in teacher-directed practice situations.

Furthermore, he has evidently failed to note that in a CBI program, student's activities should be individualized in nature. Based on the information we are given, all his students will be required to complete all competencies in one predetermined sequence. Mr. Clement should have used that competency list as a basis for helping students to identify their strengths and weaknesses, interests and goals, and then to plan an individual program based on that information.

Finally, Mr. Clement has placed far too much emphasis on the "self-initiated study" concept, and has misconstrued its meaning. Placing the responsibility for learning on students in CBI does not mean giving them all the responsibility or asking them to orient themselves to the program. Similarly, his description of his role was exaggerated. He needs to be more than a resource person assisting them in their individual work. He will need to

make group presentations, give group demonstrations, bring in subject matter experts, and use all the other excellent large-group and small-group techniques available to the skilled teacher. Students should not be turned over to CBI materials; rather, CBI should be an integral, although major, part of a total instructional program which includes options for teacher-directed study and group interaction.

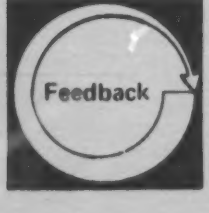
Unfortunately, despite Mr. Clement's good intentions, his impersonal approach to orientation, and his heavy emphasis on (1) student responsibility, (2) independent work involving only modularized and mediated materials, and (3) the need to successfully meet an extensive list of criteria while demonstrating a large number of now unfamiliar competencies--these factors will probably cause the students to come to class the next day frightened, apprehensive, and, in reality, unsure of what they are to do.

LEVEL OF PERFORMANCE: Your notes and discussion should have covered the same major points as the model responses. If you missed some points, or have questions about any additional points you made, check with your resource person.

Pick up your role-play descriptions from your workshop resource person and join your assigned partner. One of you should assume the role of teacher, one the role of student. The "teacher" then uses his or her role-play description sheet to help the "student" begin to plan the student's own CBI program. The sheet contains the name of the entry-level occupation for which the student is hypothetically preparing, a D.O.T. description of that occupation, and a task analysis (or partial one) of that occupation. The teacher needs to --

- check the sequence of tasks listed to determine which skills should probably be achieved first
- determine what skills the student already has
- attempt to clarify the student's specific career goals
- ask the student if any of the tasks on the list are of special importance to him or her
- plan with the student which competencies the student should start on, based on (1) his/her individual abilities, background, and career goals, (2) your knowledge of the sequence in which the tasks should be achieved, and (3) the need to motivate the student.

When that is accomplished, reverse roles, and repeat the process. Workshop resource persons will be available to assist you as needed.



When you have completed both role-plays, use the Program Planning Checklist, p. 29, to evaluate your partner's competency in assisting you, as a student, to plan your CBI program.

PROGRAM PLANNING CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL column to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

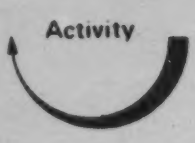
	LEVEL OF PERFORMANCE			
	N/A	NO	PARTIAL	FULL
In helping you to plan your CBI program, the teacher:				
1. shared with you the list of skills on the task analysis.....				
2. had you review the list and indicate which skills you already had.....				
3. asked questions to clarify how skilled you really were in those skills you identified.....				
4. attempted to get you to clarify your specific career goals.....				
5. had you indicate which skills on the list were of special interest to you....				
In developing the plan, the teacher appeared to consider:				
6. your present skill level.....				
7. your career goals and related needs.....				
8. your special interests.....				
9. a sequence in which the tasks should be learned.....				
10. your input as the plan was being developed.....				

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, discuss this with your role-play partner or with your workshop resource person.

Learning Experience III

OVERVIEW

Assuming the role of a *teacher* in a CBI program, demonstrate knowledge of the activities involved in managing a CBI program.



You will be listening to a large-group presentation concerning the role of the teacher in managing a CBI program.

You will be reviewing sample CBI materials; determining the general format, structure, content, and quality of CBI materials by using the sample materials as a basis to answer the questions on the Materials Worksheet, pp. 33-35; and determining which of the sample modules seems to best exemplify what CBI materials should contain.

You will be evaluating your competency in determining the general nature of CBI materials and selecting the best module, using the Materials Checklist, pp. 37-38.

continued

You will be listening to a large-group presentation concerning the teacher's role in curriculum development.

You will be selecting some CBI materials, fixing on a real secondary facility you are familiar with, and planning how you, as a teacher, could use those materials in that facility.

You will be evaluating your competency in planning for the use of CBI materials, using the guidelines provided in the feedback, p. 40.

You may wish to view sample teacher-produced media for a CBI program.

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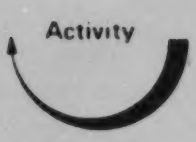


Attend a large-group presentation concerning the role and responsibilities of a classroom teacher in managing a CBI program. This presentation will include --

- organizing the CBI program for individualized instruction
- handling departmental and organizational changes
- establishing a resource center
- formulating and implementing a recordkeeping system
- determining how CBI materials will be acquired or developed

Join your assigned small group and, working individually, examine the CBI materials provided to your group by your workshop resource person. Use the Materials Worksheet below to guide your examination and structure what you are looking for. When you have finished examining the materials, complete in writing each of the items on your worksheet.

MATERIALS WORKSHEET

1. What major components do most of the modules seem to contain?

2. What components are unique to only one or two modules? How valuable do these appear to be?

3. What types of activities are generally required in the modules?

4. Do the modules contain optional, alternate, or recycling activities? Such as?

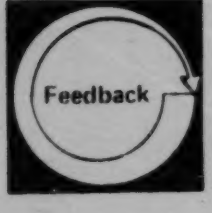
5. How self-contained are the modules?

6. How easy is it to determine how to complete these modules?

7. How appealing in appearance are the modules?

8. How much help would a person taking these modules need?

9. Ignoring the subject matter covered, which module do you think is best, and why?



Once you have completed the Materials Worksheet, use the Materials Checklist, pp. 37-38, to check your competency in selecting the best module.

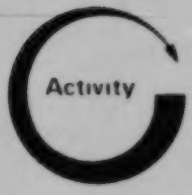
MATERIALS CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL column to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

	LEVEL OF PERFORMANCE			
	N/A	NO	PARTIAL	FULL
1. The module contains the following basic components:				
a. clear directions for using the module.....				
b. a rationale or introduction explaining the importance of the skill being covered.....				
c. a listing of performance objectives.				
d. clear, complete explanations of the activities to be completed in order to reach each objective.....				
e. information sheets or reference to a minimal number of outside references containing the needed information.....				
f. devices for immediate feedback.....				
g. a criterion-referenced post-assessment form designed to measure actual performance.....				
2. The module also contains the following components (optional):				
a. a listing of prerequisites.....				
b. a listing of terminology, and any resources and materials required....				
c. a pre-assessment device.....				
3. The module either includes all necessary materials or clearly specifies what is needed.....				

	N/A	NO	PARTIAL	FULL
4. The module contains a variety of activities.....				
5. Opportunities for recycling activities are included.....				
6. The module provides opportunities for students to interact with peers, teacher, and others.....				
7. Supplementary enrichment activities are provided to meet the needs of interested students.....				
8. Although the module could be enhanced by group activities, a student could handle it on an independent basis.....				
9. The module format and activities allow for flexibility and thus can meet the needs of students with different learning styles.....				
10. The module activities are sequenced in a logical order.....				
11. The module is well-produced (e.g., good grammar, correct spelling, clear layout, clean copy, neat corrections, etc.).....				
12. The module is attractive.....				

LEVEL OF PERFORMANCE: All items should receive FULL, or N/A responses for the module to be considered exemplary. The "best" module of the group you examined should receive FULL, or N/A on a majority of the items. If many items received NO, or PARTIAL responses, review the other modules to see if the one you selected in fact meets the most criteria.



Attend a large-group presentation in which a program coordinator in a local school system will discuss the role of their teachers in the CBI curriculum development process. You will also view a slide/tape concerning their school system and CBI programs.

Assume that the module you selected as best in the prior activity was one of a series you, as a teacher, would be using in your classes. Think of a local school facility with which you are very familiar, and assume that is where you will be using this module series.

Given the information you obtained about the tasks involved in managing a CBI program, and given the nature of the modules you have selected and the school in which you are supposedly teaching, plan in writing what steps you would have to take to successfully implement these CBI materials in that facility.

You may wish to approach this planning by --

- noting what the module requires in terms of facilities, equipment, resources, scheduling, etc.
- comparing these requirements to the characteristics of your facility
- identifying discrepancies between module requirements and facility characteristics or limitations
- planning realistic steps you could take to modify either the materials or the facilities to make them compatible, and to produce a program which meets the principles of CBI to the greatest possible extent

There is no formal feedback for this activity since plans may vary greatly depending on the nature of the materials and facilities selected. However, the plan you produced should have provided for most of the principles of CBI to be effected.

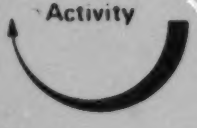
For example, after implementing all your planned changes, would the schedule allow students to work at their own pace?...would the course structure allow students to finish when they had achieved objectives rather than at a fixed time?...would the resources needed to support the module be available to students in sufficient quantities when and where they needed them?...would the facilities allow for large-group, small-group, and individualized instruction?...could the grading system accommodate progress measured by the achievement of objectives using criterion-referenced devices?

The overall criterion with which to measure the elements of your plan should be that the plan is realistic in terms of the actual facility, and encourages optimal use of CBI.

Learning Experience IV

OVERVIEW

In the role of a *teacher educator,* demonstrate knowledge of how to use PBTE materials to train teachers to use CBI.



You will be listening to a large-group presentation concerning PBTE, its application to training teachers to use CBI, and the role of the teacher educator in training teachers using these materials.

You will be participating in a small-group activity in which you will be "walked-through" Module K-1 by your resource person and asking questions as needed of your resource person.

You will be viewing a large-group presentation of a slide/tape on the role of the resource person in a PBTE program.

You will be listening to a large-group presentation concerning one post-secondary institution's approach to implementing PBTE, and viewing a related slide/tape.

continued

You will be reviewing Module K-2 and describing, in writing, the nature and use of the module using the Review Guideline Questions, pp. 44-47.

You will be discussing your description of the nature and use of the module with the other members of your small group and your resource person.

You may wish to review sample copies of The Center's 100 PBTE modules.

You may wish to complete Module CBI-101a.

Attend a large-group presentation concerning how PBTE methods and materials can be used to train teachers to implement CBI, and what the teacher educator's role in this process should be. This will also include --

- a brief explanation of The Center's work to date in PBTE
- a description of the related PBTE modules being produced by The Center and how they can be used
- an explanation of the DACUM method used to establish the competencies on which the CBI modules will be based
- a rationale for the need to train teachers to use CBI using PBTE techniques and materials

Meet with your small group and workshop resource person. At this time, your resource person will "walk" your group through Module K-1, "Orient the School and Community to Competency-Based Instruction." Your resource person will explain general module characteristics and specific format techniques in terms of this one module.

Attend the large-group presentation in which the slide/tape, "The Role of the Resource Person Using The Center's Performance-Based Teacher Education Materials" will be shown following a brief introduction by Professor Petstone. This slide/tape is designed to illustrate the critical nature of the role of the resource person in a PBTE program and to provide an overview of the responsibilities and tasks involved in fulfilling that role.

Attend a large-group presentation by a post-secondary staff development coordinator concerning the characteristics and organization of the performance-based professional development program at his institution. You will also view a slide/tape illustrating the overall performance-based nature of the courses at this institution.

Review Module K-2, "Organize the Vocational Program to Install Competency-Based Instruction," and demonstrate knowledge of the format and characteristics of The Center's modularized curricular packages by completing the Review Guideline Questions listed below. Your written responses need not be detailed; simple, concise notes will be sufficient.

REVIEW GUIDELINE QUESTIONS

1. To what does the phrase Performance Element Numbers CBI 25, 26, 27, 34 on the title page refer?

2. Are there any prerequisites required for this module and where is this information located?

3. What are the specific purposes of the section entitled About Using The Center's PBTE Modules?

4. What types of information are included in the Introduction and for what purposes? Give brief examples to support your responses.

5. Skim the overviews and answer the following questions:

   a. What specific activities are provided to give the student <u>cognitive</u> background?

   b. What specific activities are provided to give the student <u>practice</u> in applying that background information?

   c. What <u>optional</u> activities are provided?

d. Based on your expertise as a vocational educator and a vocational subject matter expert, what additional optional, or supplementary, activities could you devise to individualize the package for pre- and inservice teachers in your specific service area?

6. Why is the future tense (e.g., "You will be reading) used on the Overview pages?

7. What is the purpose of the color coding?

8. After a student reads the information sheet in Learning Experience I, how does he/she know that he/she has acquired the necessary background information?

9. What enabling objective is included in the final learning experience?

10. At what point, and under what conditions, can the student complete the final experience?

Meet with the other members of your small group and with your resource person to discuss your answers to the Review Guideline Questions. You will be evaluating your competency in answering the guideline questions by comparing your answers with those of the members of your group and/or your workshop resource person.

Your resource person may have some additional questions concerning K-2 for you to consider.

LEVEL OF PERFORMANCE: Your completed Review Guideline Questions should have covered the same major points as the model responses. If you missed some points or have questions about additional points you made, raise a question during the small-group discussion.

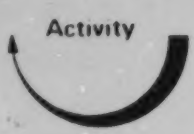
For the purpose of (1) becoming familiar with the range of modules presently available from The Center, or (2) reviewing the format and structure of other Center modules, you may wish to peruse the sample modules on display in your area.

In order to gain concrete experience in achieving a competency through the completion of a module, to acquire further information on the concepts and principals underlying PBTE, and to experience the role of resource person as evaluator, you may wish to complete the total Module CBI-101a appended to this module. You could arrange for a peer to also complete the module. You could then evaluate his/her final performance, and he/she could evaluate yours.

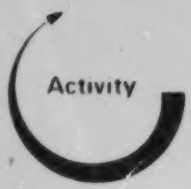
Learning Experience V

OVERVIEW

In your own role as a *leader in this training effort,* plan how you will implement the CBI training program and orient the persons involved.



You will be listening to a large-group presentation concerning methods of infusing the use of PBTE modules into a traditional teacher education program, and your role in this process.



You will be listening to one or more teacher educators who have used PBTE materials discuss their experiences with implementation.

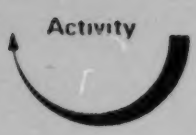
You will be listening to a large-group presentation on the orientation materials and strategies which you can use with members of your staff and interested others.

You will be reviewing Module CBI-102, an on-site orientation module.

continued

You will be planning with the other persons from your site as to how you will implement the training program and orient the persons involved, using the Orientation/Implementation Planning Guide, pp. 53-55. You will be submitting the completed plan to Center resource persons before leaving today.

Your competency in tentatively making orientation and implementation plans will be evaluated by Center resource persons, using the Planning Checklist, pp. 61-62. Duplicated copies of both the plans and the completed checklists will be returned to you by mail as quickly as possible.



Attend a large-group presentation concerning what you, as a leader in this training effort, can do to prepare the teacher educators in your area to train their prospective or inservice teachers to use CBI. This will include:

- selecting implementation strategies for infusing PBTE into your program
- planning how to deliver on the competencies not presently covered by Center CBI modules
- identifying changes to be made to accommodate modular instruction (grading, record keeping, etc.)
- gaining cooperation of local schools

Attend a large-group presentation led by two teacher-educators who have had major responsibility over the past year for testing and implementing The Center's PBTE materials in their own institutions. These persons will discuss from their own personal experiences what is involved in implementing PBTE: the strategies they used and the problems they encountered. Time for questions will be provided.

Attend the large-group presentation concerning the objectives, time parameters, strategies, and materials for your own on-site staff orientation. This will include:

- materials available from The Center
- assistance available from The Center
- decisions to be made
- factors to be considered

Review your copy of CBI-102, the on-site orientation module, to get an idea of the content and structure.

Meet with the other members of your site group and initiate your plans for orientation and implementation by considering the questions on the Orientation/ Implementation Planning Guide below. Review the items briefly and then, based on the unique needs of your site, try to respond to those items most critical to your needs. Have one member of your group keep notes of the questions raised and decisions made by your group. The plans you have made by the end of the day (in readable rough form) will be turned in at the end of the session.

A Plan of Action is provided on pp. 57-60. Once you have completed your initial planning, you can use this form to do more specific planning concerning what actions you must take, on what dates, and involving what persons. This plan can be completed on-site if necessary.

ORIENTATION/IMPLEMENTATION PLANNING GUIDE

I. Orientation Concerns

When between now and June 30 would be the best time for your Center-assisted on-site orientation? What persons or groups should be included in this orientation session: teacher educators, state department representatives, college administrators, local school administrators, local teachers, etc.? Is CBI-102 adequate as is?...should some activities be added or deleted?...which activities should be deleted?...what supplementary activities would you add? CBI-102 ideally requires 1 1/2 days to complete; can you free the participants for a full 1 1/2 days?...if not, how could you modify CBI-102 so that each participant receives all the information he/she needs?...would it be preferable to hold two or more mini-sessions instead of one extended session? Will you hold a pre-orientation session to orient staff to The Center project in which you are involved?...what activities would you include in this session? How can The Center consultants best serve your training needs during the on-site orientation?

II. Program Concerns

In what structure will you use K-1 and K-2: a traditional course structure, a modified PBTE program, a full-blown PBTE program? If you plan to use this experience to initiate a move toward implementing PBTE in your institution, what changes can you make at this point to facilitate that move (e.g., changes in record keeping, scheduling, grading, etc.)? How can you gain the cooperation of local schools so that persons using K-1 and K-2 can complete the final experiences? How can you facilitate the smooth integration of K-1 and K-2 into your teacher education courses?...how will you orient students to the use of K-1 and K-2 (e.g., general orientation session, orientations within individual classes)?...how will you motivate students to use K-1 and K-2?...how will you ensure that students have the time required to adequately complete K-1 and K-2?...how will you ensure that teacher educators use K-1 and K-2 effectively, relating it to other coursework, providing supplementary resources and enrichment activities, and not using the modules as a reading assignment, extra credit add-on work, etc.?

III. Future Concerns

Do you plan to deliver on the other CBI teacher competencies not presently covered by Center modules?...what method(s) will you use to give pre- and inservice teachers skill in those competencies?...will you prepare modules to cover these competencies?...how will materials be prepared? Are there opportunities for you to provide inservice teachers with information about CBI through professional development workshops or similar means?...what strategies could you use to make them receptive to implementing CBI techniques and materials?...what resources would you need for such a workshop (e.g., an orientation module, an annotated list of CBI materials, etc.)?

PLAN OF ACTION
FOR PREPARING VOCATIONAL TEACHERS TO INSTALL AND MANAGE
COMPETENCY-BASED VOCATIONAL INSTRUCTION

Awareness of Competency-Based Instruction (CBI)

Items to be considered:

- securing administration approval of CBI teacher education effort
- ensuring education faculty awareness of CBI effort
- securing local school system commitment to CBI training program for teachers
- providing information about CBI program to preservice/inservice teachers

Actions to be Taken	Beginning/Completion Dates	Person(s) Responsible

Staff Orientation and Training

Items to be considered:

- preparing for on-site training workshop
  - dates
  - content
  - people to be involved
  - arrangements
- orientation of preservice and inservice vocational teachers
- training of field resource persons

Actions to be Taken	Beginning/Completion Dates	Person(s) Responsible

Program Planning for Teacher Training for CBI

Items to be considered:

- selection of professional education courses in which to infuse training for CBI
- identification of workshops or other experiences in which to infuse CBI teacher training
- devising agreement with schools to cooperate in teacher training
- subject matter content of instructional experiences
- selection of instructional materials (e.g., modules) to be utilized in training
- assignment of staff responsibilities in the CBI teacher training program

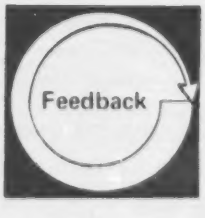
Actions to be Taken	Beginning/Completion Dates	Person(s) Responsible

Implementation and Management of the CBI Teacher Training Program

Items to be considered:

- acquisition of needed instructional resources
- provision of resource center
- provision of needed funds
- assessment of teacher performance
- keeping records of student achievement

Actions to be Taken	Beginning/Completion Dates	Person(s) Responsible



Your tentative plans will be evaluated by the workshop resource persons, using the Planning Checklist, pp. 61-62. Duplicated copies of your plans and the complete checklists will be returned to you by mail.

PLANNING CHECKLIST

Site Name _____

Directions: Place an X in the NO, PARTIAL, or FULL column to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

	LEVEL OF PERFORMANCE			
	N/A	NO	PARTIAL	FULL
In planning for the on-site workshop which would involve consultants from The Center, the site team:				
1. set a realistic date and time frame for the workshop.....				
Comments: _____				
2. identified appropriate persons or groups to be included in the orientation session.....				
Comments: _____				
3. included specific plans as to how CBI-102 would be used.....				
Comments: _____				
4. defined the roles The Center consultants would be expected to play at the workshop.....				
Comments: _____				
5. provided alternate plans if CBI-102 was not to be used, including activities to be completed and time breakdowns....				
Comments: _____				
In planning other orientation sessions, the site team:				
6. identified other groups which need to be made aware of CBI..				
Comments: _____				
7. made tentative plans for how and when these groups could be oriented.....				
Comments: _____				
8. made plans for interfacing with local schools as necessary..				
Comments: _____				

	N/A	NO	PARTIAL	FULL
9. made plans for orienting pre- and inservice teachers to Modules K-1 and K-2 and how they would be used.....				
Comments: _____				
_____				
In planning how K-1 and K-2 would be used in the teacher education program, the site team:				
10. made realistic plans for integrating the modules into the present program.....				
Comments: _____				
_____				
11. drafted tentative plans for aiding the teacher education faculty in planning how the modules would be used in their courses and how they could supplement and enrich these materials.....				
Comments: _____				
_____				
12. proposed strategies for securing the cooperation of local schools in providing opportunities for prospective teachers to complete the actual school situation experiences in K-1 and K-2.....				
Comments: _____				
_____				
If future efforts were considered, the site team:				
13. made tentative plans for delivering on the other CBI competencies not presently covered in Center modules.....				
Comments: _____				
_____				
14. made tentative plans for further incorporating the PBTE approach into their teacher education program(s).....				
Comments: _____				
_____				
15. examined strategies for providing inservice experiences to teachers relative to implementing CBI.....				
Comments: _____				
_____				

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, review the comments provided by your Center resource person, and revise your plans accordingly.

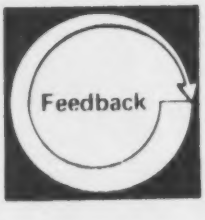
Learning Experience VI

FINAL EXPERIENCE

Within your own institution, train educators to install competency-based vocational instruction.

Once you have returned to your home institution, train educators to install competency-based vocational instruction. This will include:

- completing all planning activities
- orienting all persons involved
- making cooperative arrangements with local schools
- training teacher educators to use K-1 and K-2 with preservice and inservice teachers to train them to implement CBI with students



Your total competency will be assessed by you, using the Teacher Performance Assessment Form, pp. 65-66.

Based upon the criteria specified in this assessment instrument, you will determine whether you are competent in training educators to install competency-based vocational instruction.

TEACHER PERFORMANCE ASSESSMENT FORM
Train Educators to Install CBVI (CBI-101)

Directions: Indicate the level of your accomplishment by placing an X in the appropriate column under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

In training educators to install competency-based vocational instruction, you:	LEVEL OF PERFORMANCE					
	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
1. finalized your program plans by:						
a. deciding which teacher educators would be involved.....						
b. determining how you could establish some sort of PBTE resource center in your institution.....						
c. identifying the local schools that would be involved.....						
d. deciding on strategies to use in gaining the cooperation of these local schools.....						
2. planned your on-site orientation sessions by:						
a. determining which persons needed to be oriented.....						
b. deciding how best to orient all these people (workshops, pamphlets, etc.).....						
c. establishing how Module CBI-102 would be used.....						
d. assigning responsibility for activities within CBI-102 to specific persons.....						

	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
e. arranging for needed facilities and equipment.....						
3. conducted your staff orientation.....						
4. conducted awareness activities for concerned others.....						
5. made contact with local schools.....						
6. gained the cooperation of the local schools.....						
7. implemented procedures for using cooperating school field-sites.....						
8. arranged for and secured the needed PBTE materials, equipment, and facilities for your institution.....						
9. arranged for any program changes involved in using the PBTE materials...						
10. provided The Center with feedback, including:						
a. preparing and submitting interim reports.....						
b. preparing and submitting a final report.....						
c. making periodic telephone contact with Center staff.....						

LEVEL OF PERFORMANCE: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, you need to identify what additional activities you need to complete in order to reach competency in the weak area(s).

CONSTRUCT

TRUE-FALSE TEST ITEMS

CBI-101a

PERFORMANCE ELEMENT NO. 150

The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

January 1977

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INTRODUCTION

Performance-based instructional concepts and materials have great potential for improving the effectiveness of our vocational teacher education programs. By identifying the competencies needed by teachers and ensuring that prospective teachers actually demonstrate these competencies before being certified, teacher training institutions can be assured of producing better prepared teachers.

To assist teacher educators in designing performance-based teacher education programs, the Program II staff at The Center for Vocational Education, The Ohio State University, have been working since 1967 to (1) identify the professional competencies needed by teachers of conventional vocational programs and of cooperative programs, (2) cluster the resulting 384 competencies into categories and module titles, (3) develop prototype modules in cooperation with vocational teacher educators at The University of Missouri at Columbia and Oregon State University at Corvallis, (4) test and revise those modules, (5) test and refine the revised modules, and (6) assist educators in implementing these modules.

This module is designed to provide you with a hands-on experience in modularized competency-based teacher education. This module, although modified, follows the present format and structure of the 100 PBTE modules developed at The Center. It is hoped that by completing this module, you will get a more realistic picture of what modularized performance-based instruction involves.

Module Structure and Use

Organization This module contains an introduction and three sequential learning experiences. Overviews, which precede each learning experience except the final one, provide at a glance brief descriptions of what each learning experience entails.

Two types of objectives form the basis of the learning experiences: a terminal objective and enabling objectives. The enabling objectives are designed to help you achieve the terminal objective. Each learning experience has activities to help you accomplish the objective, and by use of the feedback devices provided, you should be able to determine if you have reached each objective.

The first learning experience is designed to provide you with the needed background information. The second learning experience is designed to give you an opportunity to apply that information in a practice situation. The final learning experience is designed to allow you to actually construct true-false test items.

Objectives This module includes three objectives:

Terminal Objective: In an actual test-writing situation, construct two to four true-false items for use in evaluating prospective resource persons who have completed a learning activity on the role of the resource person. Your performance will be assessed by your resource person, using the "Teacher Performance Assessment Form," p.37 *(Learning Experience III)*.

Enabling Objectives:

1. After completing the required reading, demonstrate knowledge of the rules for constructing true-false items *(Learning Experience I)*.

2. Given several true-false items developed by a hypothetical teacher to test students on a particular reading, critique those items *(Learning Experience II)*.

Procedure Normally, student progress through these modules is self-paced and students select only those activities that they need or in which they are not yet competent. This section is used to guide them in deciding how much of the module they need to complete. Due to the nature and time constraints inherent in this particular module, this section is not applicable.

Resources A list of the outside resources which supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions, or in assessing your progress at any time.

LEARNING EXPERIENCE I

No outside resources

LEARNING EXPERIENCE II

No outside resources

LEARNING EXPERIENCE III

Required

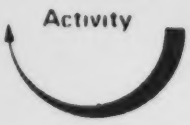
- *A resource person* to assess your competency in constructing true-false test items.

Terminology Resource Person...refers to the person who is guiding you in taking this module and/or the person(s) responsible for evaluating your competency in meeting the terminal objective.

Learning Experience I

OVERVIEW

After completing the required reading, demonstrate knowledge of the rules for constructing true-false items.



You will be reading the information sheet for "Constructing True-False Items," pp. 7-9.

You will be demonstrating knowledge of the rules for constructing true-false items by completing the "Self-Check," p. 11.

You will be evaluating your competency by comparing your completed "Self-Check" with the "Model Answers," p. 13.

For information explaining the rules for developing effective true-false items, read the following information sheet:

CONSTRUCTING TRUE-FALSE ITEMS[1]

Rules for Construction

1. Each statement should be entirely true or entirely false. It is not uncommon to find true-false statements consisting of several clauses, with an introductory clause which is true and a subsequent qualifying clause which is not true.

   FAULTY EXAMPLE:

   > Dogs are mammals, and they are the most intelligent animals with the exception of man.

   Such a statement may confuse the student because it is half true and half false. If the statement were changed to: "The dog is the most intelligent animal," it would be a clear-cut false statement.

2. Trivial details should not make a statement false. A statement should, instead, be a fundamentally false idea.

   FAULTY EXAMPLE:

   > Columbus first landed in the Caribbean Islands in 1493.

   This is a poor statement because 1493 does not represent enough change in the date. The statement might better read, "Columbus discovered America in 1510." In this case the statement is fundamentally false because Columbus did not discover America and 1510 is a date in the century after his first landing in the new world.

3. The statement should be concise without more elaboration than is necessary to give clear meaning. Furthermore, it is desirable to use words having precise meaning rather than words that approximate the desired meanings.

   EXAMPLE:

   > The ancient Egyptians had a polytheist type of religion.

   Lengthening the statement in the following ambiguous manner decreases its measurement value: "The people who inhabited

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[1]Taken from John A. Green, Teacher-Made Tests. Second Edition. (New York: Harper & Row Publishers, 1976), pp. 65-67.

the Nile Valley two thousand years before the birth of Christ worshipped numerous gods, the most important of whom were Seth, the god of evil, and Osiris, the god of good."

4. Exact statements should not be quoted from the textbook. Rather, it is best to modify the wording in order to defeat the rote learner who can identify the words of the text without understanding them.

5. Quantitative terms should be used instead of qualitative terms, whenever possible.

EXAMPLE:

> There have been five Democratic presidents of the United States since World War I.

If the word several were substituted for the word five in the statement above, it would become a qualitative statement which could be given a variety of interpretations. To one person the term several may mean 2, but to another it may mean 30.

6. Specific determiners, which give a cue to the answer, should be avoided.

EXAMPLE:

> Women have a longer life-span than men.

This true statement becomes false when the specific determiner all is included so that it reads, "All women have a longer life-span than men." The statement again becomes true, although ambiguous, when cued with the specific determiner sometimes to read, "Sometimes women have a longer life-span than men." Statements that begin with all or always are nearly always false, whereas statements containing the words sometimes or maybe tend to be true. Furthermore, some test makers consistently begin false statements with the same phrase and start true statements with another overworked phrase. The meaning of the total statement, and not one word or phrase, should be the only cue to the correct answer.

7. Negative statements should be avoided.

FAULTY EXAMPLE:

> Man cannot exist without oxygen.

Although this is a short concise statement, it contains two negatives, cannot and without. The statement would be much improved if it were rephrased to read, "Man needs oxygen to exist." Negative statements tend to be misread by pupils. They do, however, serve the purpose of giving some measurement of the pupil's reading ability.

8. When a controversial statement is used, authority should be quoted. This permits the pupil to judge the correctness or incorrectness of the statement from his knowledge of the authority's stand; otherwise, he has to answer on the basis of his own opinion or guess what the opinion of the instructor might be.

FAULTY EXAMPLE:

Federal aid to public schools is desirable.

A statement such as that above is easily improved by adding an authority reference such as, "President Kennedy believed that federal aid to public schools is desirable." This change permits the pupil to respond on the basis of his knowledge of the authority's opinion rather than placing him in the quandry of responding on the basis of his, or his instructor's opinion.

9. A pattern of answers should be avoided. Teachers tend to include more true than false items in their true-false tests; consequently, the "test-wise" pupil who knows little about the subject being tested can improve his score by marking true all items about which he is in doubt. Sometimes a test may include a pattern, such as two true, one false, two true, one false, so that it is easy for the pupil to determine the answers to items that he does not know. To avoid this difficulty, the teacher should consciously vary the proportion and arrangement of true items and false items.

The following item checks your comprehension of the material in the "Information Sheet for Constructing True-False Items," pp. 7-9. The item requires a short essay-type response. Please explain fully, but briefly.

SELF-CHECK

1. Many teacher-made tests consist of true-false items because they are felt to be the simplest items to prepare. Based on the nine rules given in the reading, how simple do you think they are to construct.

Compare your written response on the "Self-Check" with the model answer given below. Your response need not exactly duplicate the model answer; however, you should have covered the same major points.

MODEL ANSWER

1. True-false items appear to be easy to write. Effective true-false items are deceptively more difficult to construct. One would have to be very careful if one wished to avoid breaking any of the rules given. To develop items which are clear, brief, unambiguous, and entirely true or false requires practice and skill.

LEVEL OF PERFORMANCE: Your completed "Self-Check" should have covered the same major points as the model answer. If you missed some points or have questions about any additional points you made, review the "Information Sheet for Constructing True-False Items," pp. 7-9, or check with your resource person if necessary.

Learning Experience II

OVERVIEW

Given several true-false items developed by a hypothetical teacher to test students on a particular reading, critique those items.

You will be reading the material on which the true-false items were based: "Development and Field Testing of The Center's PBTE Materials," pp. 17-20.

You will be reading and critiquing the "True-False Items," pp. 21, developed by a hypothetical teacher to cover the reading.

You will be evaluating your competency in critiquing the true-false items by comparing your completed critique with the "Model Critique," p. 23.

Mr. Gilmore assigned his students to read the following material. Please review this material at this point.

DEVELOPMENT AND FIELD TESTING OF THE CENTER'S PBTE MATERIALS

Following verification of the 384 competencies identified in the research, work was initiated to develop the necessary curricular materials. The materials are especially designed for use in implementing performance-based vocational teacher education programs for all vocational service areas, at both the preservice and inservice levels. The curricular materials are in the form of individualized learning packages, or modules, each of which has as its base one or more of the 384 competencies. By basing the modules on the verified competencies, there is solid assurance that the objectives of the modules acutally represent competencies needed by vocational teachers.

To further ensure that the modules reflect the actual needs of vocational teachers and that the modules appear to the user as likely to deliver on the objectives, the module development process was structured so as to ensure maximum involvement by persons in real world settings. Each module was initially developed in cooperation with persons at institutions and agencies representative of those who will eventually use it. Quality control procedures were built into all steps of this process.

Briefly, the development process involved (1) development of 118 prototype modules at two university sites: The University

of Missouri at Columbia, and Oregon State University at Corvallis; (2) review of each module's accuracy and acceptability by teams of teacher educators at both sites representing all vocational service areas; (3) review of each module by Center staff; (4) revision of prototype modules by Center staff using all reviews as a basis for changes made; (5) preliminary testing of each revised module by ten or more students at one or more universities; (6) review of each module's usability and effectiveness by students and teacher educators involved in testing the module; (7) review of individual modules and categories of modules by independent consultants and subject matter experts; (8) psychometric refinements of the objectives and assessments of each of the 118 modules by the California Testing Bureau of McGraw-Hill; (9) revision of tested modules by Center staff and independent consultants (reducing the number to 100) using all reviews as a basis for changes made; (10) review of each revised module by Center staff; and (11) final preparation of modules for advanced testing which was conducted at seventeen university sites in the United States, and at one post-secondary institution in Canada.

Throughout this cooperative development process, inputs by faculty and students in actual teacher preparation situations have materially influenced format and content of the modules. The module format is standardized into four major components (1) Title Page; (2) Introduction; (3) Module Structure and Use; and (4) Learning Experiences. Some learning experiences provide students with the information and background knowledge they need

to perform the competency. Other learning experiences give students the opportunity to practice the competency in a simulated situation. The final learning experience always requires the student to demonstrate in an actual school situation that he or she has achieved the competency described in the terminal objective of the module. Each learning experience includes devices which allow the student to get immediate feedback on his or her progress.

The final step in the development and testing process involves final refinement of the modules based on advanced testing results.

Further assurance of the nature and quality of the performance-based materials is provided in the following excerpts from letters written by two members of the National Advisory Panel for the Performance-Based Professional Curricula Program after attending a February 1975 panel meeting.

- The project itself reflects careful thinking and planning. It is quite likely that the products will be the most carefully conceived, produced, and tested in the country. I perceive that many educators, other than in vocational and technical fields, will be interested in modifying them for use with elementary teachers, secondary teachers in other areas, and other post-secondary training programs where teaching is involved (business and industry, military, etc.).

- I was particularly impressed with the systematic procedures that have been and are being followed as the project moves through its various stages. In my opinion, thoroughness is absolutely essential to the accomplishment of a task of this magnitude.

- I was further gratified to see that the actual modules are instructionally sound. This judgement reflects my impression that the instructional system used on each module is well designed and that the content of the modules appears to be substantive. The brief review of actual modules which I made indicated that the content of the instruction is based on well accepted learning principles.

To evaluate his students' comprehension of the information in the assigned reading, Mr. Gilmore developed the following true-false items. Please read each item and briefly critique each item in writing. Indicate what is wrong with the item and how it could be improved.

TRUE–FALSE ITEMS

1. Each module is based on one or more of the 385 competencies. T (F)

2. Quality control procedures were built into all steps of this process. (T) F

3. Modules were never revised without being reviewed by at least 15 consultants. T (F)

4. The module format is standardized into several major components. (T) F

Compare your written critique of the test items with the model critique below. Your critique need not exactly duplicate the model critique; however, you should have covered the same major points.

MODEL CRITIQUE

Item 1--This is an example of an item which is false because of a trivial detail: it says 385 competencies rather than 384. Since what is important is whether or not the modules were based on one or more competencies, the item should be written to evaluate if students grasped that fact.

Item 2--This item is an exact quote from the reading requiring students to remember rote what they've read. The wording of this item should be modified.

Item 3--This item is negatively worded which can throw students off in responding "true" or "false". It should be changed to read "A variety of inputs were used in revising the modules," or something similar.

Item 4--Rather than saying "several," Mr. Gilmore should have used the quantitative word, "four," to produce a clearer item.

General Comment--Notice that his items are set up to form a pattern--F, T, F, T--which is also undesirable.

LEVEL OF PERFORMANCE: Your completed critique should have covered the same major points as the model critique. If you missed some points, or have questions about any additional points you made, review the material in the "Information Sheet for Constructing True-False Items," pp. 7-9, or check with your resource person if necessary.

Learning Experience III

FINAL EXPERIENCE

In an actual test-writing situation, construct two to four true-false items for use in evaluating persons who have completed a learning activity on the role of the resource person.

Review the handout, "The Role of the Resource Person," pp. 27-33. Assume that you had provided prospective resource persons with this handout and now wished to test their comprehension of the material.

Construct two to four true-false items which could be used to test the prospective resource persons on the information in the handout provided.

Your total competency will be assessed by your resource person, using the "Teacher Performance Assessment Form," p. 37.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in constructing true-false items.

THE ROLE OF THE RESOURCE PERSON

Critics of programs which use performance-based teacher education (PBTE) modules claim that turning students over to packaged materials to work independently is impersonal and ineffective. Normally we do not start information sheets with such negative statements, but this point is critical: the teacher educator must not abandon students to the modules. The Center's PBTE approach absolutely requires the active presence of the resource person to make it work. He or she is vital in (1) orienting students to the PBTE program, (2) helping students select the modules they will take, (3) assisting students in getting needed supplies and materials, (4) arranging small-group and large-group meetings so students have a chance to interact, (5) helping students set up simulations involving peers, (6) providing advice when students encounter problems, (7) supplementing the material in a given module with materials, presentations, and activities drawn from his/her own expertise as a teacher educator, (8) providing students with feedback when it is needed, and (9) evaluating students' final performance.

In our testing experience to date, when students indicated they disliked working with modules, it was generally because they had been asked to work alone on the modules unassisted by a resource person or by fellow students. Typical comments include:

"I couldn't find any peers to work with"

"My resource person was never available"

"I couldn't locate the required videotape"

"I'd already had a course on this topic so this was sheer busywork for me"

"I miss discussing things with my classmates"

Teaching is an interactive process. You cannot teach teachers to interact effectively with students if you give them a module and require them to work in isolation. These modules were not designed for that purpose. Each module provides basic information and activities, but the resource persons are the key to making the modules work. The modules are only a simple tool in teacher preparation. It is up to the resource person to provide additional learning tools and to truly individualize the instructional process to meet students' needs.

Explaining PBTE to Students

In all probability, few of your students will be familiar with PBTE, so your first task is to introduce them to the concept. People tend to be uncomfortable (even antagonistic) when confronted with something unfamiliar. Before they will accept the new, they want to know what it is, what its value is, and how it will affect them. Consider how you feel when someone asks you to taste something unfamiliar and, perhaps, vaguely suspicious in appearance. To avoid such a qualmish reaction you need to tell your students why you have elected to use modules, how using modules requiring performance in an actual school situation can help prepare them to teach, and how your particular program of use is set up.

Another consideration is that students have probably been

exposed primarily to educational systems involving large-group instruction and teacher-centered instruction. They are used to having the teacher take responsibility for teaching, rather than their having to take responsibility for learning. Therefore, they need to be oriented to the new role they are expected to play and to their new responsibilities for learning.

Helping Students Select Modules

In PBTE, students are evaluated on whether they have achieved a particular skill, not whether they have completed a particular module. Thus, another of your tasks as a resource person is to help students identify which modules, or which learning experiences within a module, they need to complete to meet your requirements and their needs. This means that you will have to identify which modules you will use in your course, which are required, and which are optional. You will also have to meet individually with students to determine which skills they already possess. If a student already possesses a particular skill, he or she should need only to demonstrate the competency to specified standards without going through the whole module.

Facilitating Students' Completion of Modules

Most modules include activities (generally optional) which call for outside resources. A student may be asked to present a lesson to a group of peers. The module may suggest supplementary readings. It may be recommended that the student videotape his/her performance for self-evaluation purposes. A module may recommend that the material in the information sheet be discussed further

with peers or with the resource person. A student may be told that it would be helpful to meet with an experienced teacher to discuss a particular concept or to observe that teacher demonstrating a particular skill.

Students may experience difficulties in carrying out these activities if you have not set up guidelines or procedures in advance. You need to devise a system for students to easily locate the equipment, materials, peers, and resource persons they need so that they can complete the module without being forced to jump unnecessary hurdles, or experience unnecessary delays. This system should also include provision for periodic small-group and large-group discussion sessions.

Another part of your system must be designed to ensure that a student with a problem or question concerning an activity has access to you, or another person designated as a resource, within a reasonable amount of time. Specific office hours, periodic class meetings, sign-up sheets, student resource persons can all be used to prevent students from being unable to get a needed answer.

It should be noted that to provide students with advice and answers concerning a given module, it is absolutely critical that any resource person be totally familiar with the content and learning activities of the module involved.

Supplementing Module Activities

Modules were written to be used by teacher educators, not to

replace them! Teacher educators have been specially trained in the professional and/or technical skills needed by classroom teachers. Their expertise and experience are essential to successful use of the modules. As a teacher educator you are undoubtedly aware of numerous materials and techniques which are effective in teaching a particular skill, such as:

- presentations
- guest speakers
- textbooks, periodicals, pamphlets, handouts
- simulations, role-playing situations
- videotapes
- audiovisuals

As mentioned previously, the resource person must be thoroughly familiar with each module that he or she assigns. During the process of familiarizing yourself with a particular module, you should plan how you can supplement the contents of the module. Do you have an excellent handout on the subject? Would students benefit from participating in a seminar at some point in the module? Would a large-group presentation enhance the module activities at some point? Do you have additional tips or practical do's and don'ts you need to convey to students concerning the skill? Is there additional information, unique to the vocational service area in which your students are training, which they need to be aware of? By asking questions of this type as you review each module, you can make the learning experience more effective for your students.

Providing Feedback

Because we recognize the limitations on each resource person's time, we have tried where possible to have students do Self-Checks on their progress, involving the resource person as the evaluator only in the final experience. However, the modules remind students periodically to check with their resource person if they are experiencing problems. If a student does not agree with or understand the feedback provided in the module, you need to provide him or her with additional feedback. Furthermore, as time allows, you should spot check student progress to be sure that each student is using the modules correctly and to provide students with reinforcement and feedback concerning their progress. For example, some students, unused to setting their own pace, may tend to wait until the last minute to complete their module work which seems less pressing. By monitoring their progress, you can detect such problems and take corrective measures.

Evaluating Final Performance

The Center's PBTE modules require that students prove their competency by meeting specified criteria while performing the skill in an actual school situation. It is essential when students are evaluated using the Teacher Performance Assessment Form in the final experience, that the evaluator is qualified to use this form effectively. This means that teacher educators should be familiar with these forms in advance to increase the consistency of the ratings, and that other persons who are asked to use these

forms (e.g., cooperating, or master, teachers) be trained to use them properly. Since the student's competency is assessed during the final experience of each module, it is essential that these forms be used appropriately, objectively, and consistently.

The role of the resource person is indeed a crucial one, requiring, perhaps, a change in emphasis and activity on the part of the teacher educator, but certainly not a change in the need to draw upon all of his or her reservoir of information, experience, and training. Modules are not a substitute for the teacher educator, but simply a way to structure, enliven, and enrich student learning.

The duties of the resource person are many, varied, and in some ways, demanding. The resource person works with students as advisor, helper, instructor, and evaluator. If the resource person can accomplish these duties conscientiously and skillfully, the resulting teacher education program can provide an exciting and growth-producing experience for the teacher, and a professionally satisfying experience for the teacher educator.

Use the space provided to write your two to four true-false items which could be used to test prospective resource persons on the information in the activity provided. Do not put your name on this paper. When you have completed the exercise, remove this page from the module and place it in the box designated by your resource person.

1.

2.

3.

4.

Rate the teacher's level of performance on each of the following performance components involved in constructing true-false items. Indicate the level of the teacher's accomplishment by placing an X in the appropriate column under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was inapplicable or impossible to execute, place a X in the N/A column instead.

TEACHER PERFORMANCE ASSESSMENT FORM

	LEVEL OF PERFORMANCE					
	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
1. Each statement was entirely true or entirely false.....						
2. Each false statement was fundamentally false, not false because of trivial details.....						
3. Each statement was concise, without more elaboration than was necessary to make the meaning clear.....						
4. Each statement was freshly worded, not copied rote from the reading.....						
5. Quantitative, rather than qualitative, terms were used whenever possible.....						
6. Each item was free of specific determiners (e.g., words such as "all," "sometimes," etc.).....						
7. Negative statements were avoided.....						
8. If a controversial statement was used, an authority was cited.....						
9. A pattern of answers was avoided.....						

LEVEL OF PERFORMANCE: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, discuss this with your resource person and, if necessary, the learning experience, or part of it, must be repeated.